

What is Claimed is:

1. A device for modifying engine valve lift during an engine valve event in an internal combustion engine, said device comprising:

a housing having a hydraulic fluid dump port formed therein;

a sleeve slidably disposed in a bore formed in said housing, said sleeve having a cavity formed therein;

a piston slidably disposed in the sleeve cavity; and

a clip passage formed in said piston, said clip passage in selective communication with the dump port.

2. The device of Claim 1, further comprising means for adjusting the position of said sleeve within the bore.

3. The device of Claim 2, wherein said adjusting means comprises:
a screw extending through said housing into the bore; and
a locking nut secured to said screw, wherein said locking nut may be adjusted to extend said screw a desired distance within the bore.

4. The device of Claim 2, wherein said adjusting means comprises:
a lash passage formed in said housing; and
means for selectively supplying hydraulic fluid to said lash passage.

5. The device of Claim 4, wherein said lash passage is disposed above said sleeve.

6. The device of Claim 4, wherein said lash passage selectively communicates with said clip passage.

7. The device of Claim 2, wherein said adjusting means comprises:
a screw extending through said housing into the bore;
a locking nut secured to said screw, wherein said locking nut may be adjusted to extend said screw a desired distance within the bore;
a lash passage formed in said housing; and
means for selectively supplying hydraulic fluid to said lash passage.

8. The device of Claim 1, further comprising a first spring disposed between said sleeve and said piston biasing said piston away from said sleeve.

9. The device of Claim 8, further comprising a second spring disposed between said sleeve and said piston.

10. The device of Claim 9, wherein the biasing force of said second spring is less than the biasing force of said first spring.

11. The device of Claim 1, wherein the engine valve event comprises an exhaust gas recirculation event.
12. The device of Claim 1, wherein the dump port communicates with ambient.
13. The device of Claim 1, further comprising:
an accumulator disposed in said housing,
wherein the dump port communicates with said accumulator.
14. A device for modifying engine valve lift during an engine valve event in an internal combustion engine, said device comprising:
a housing having a bore and a hydraulic fluid dump port formed therein;
a piston slidably disposed in the bore;
a clip hole formed in said piston;
a clip passage formed in said piston, said clip passage in selective communication with the dump port; and
a check valve assembly disposed between said clip hole and said clip passage.
15. The device of Claim 14, wherein said check valve assembly comprises:
a check ball; and

a spring biasing said check ball in a position covering said clip hole.

16. The device of Claim 15, further comprising:

means for supplying hydraulic fluid to the bore, wherein hydraulic fluid pressure in the bore selectively moves said check ball from the position covering said clip hole.

17. The device of Claim 15, further comprising:

a plunger extending through said housing into the bore;

a locking nut secured to said plunger, wherein said locking nut may be adjusted to extend said plunger a desired distance within the bore.

18. The device of Claim 15, wherein the engine valve event comprises an

exhaust gas recirculation event.

19. The device of Claim 15, wherein the dump port communicates with

ambient.

20. The device of Claim 15, further comprising:

an accumulator disposed in said housing,

wherein the dump port communicates with said accumulator.